REMARKS

The Office Action has been received and reviewed. In the Office Action, claims 16-34 were allowed and claims 2-15 were rejected.

Amendments To The Specification

Nine paragraphs have been amended herein. The amendments to the specification were made for the following reasons:

(1) to correct grammar errors, or
(2) to insert words that (a) do not introduce new matter, and (b) which could be inferred should have appeared in the original, and (c) which aid the reader, or
(3) to make references to things or actions consistent with other references to the same things or actions.

The amendments should result in a specification that is easier to read. None of the amendments to the specification introduce new matter. No amendment was made in response to a rejection found in the Office Action. Finally, no amendment was made for reasons related to patentability.

Response To Rejections Of Claims

At section 2 of the Office Action, it was argued that claim 2 has subject matter which was not described in the specification in such a way as to enable one skilled in the art to practice the invention. The Office Action notes that claims 3-15 depend from

claim 2, and therefore are not allowable for the same reason that claim 2 is not allowable.

In the Office Action, it was argued that the specification does not adequately describe eliminating source code calling for creation of intermediate data structures from the extracted source code. It is respectfully submitted that the specification provides the necessary description at pages 14-17.

The specification describes an embodiment of the invention in which event traces are determined and common paths of execution are identified, and then the event traces are optimized.[1] The optimization techniques are divided into three classes.[2] The first class of optimizations is directed at improving the speed of computation.[3] More specifically, the first class of optimizations improves the performance of the computation in event handlers.[4]

The specification states that the general approach used by each optimization in the first class is to carry out a set of transformations to the protocol stack so that traditional compilation techniques can be effectively applied.[5] It is important to note that from this section of the specification, the reader learns the optimizations included in the first class are transformations which allow for the effective application of

[1] See the specification at page 14, lines 31-33.

[2] See the specification at page 14, line 33 to page 15, line 1.

[3] *See* the specification at page 15, lines 1-3.

[4] *See* the specification at page 15, lines 10-12.

[5] See the specification at page 15, lines 12-16.

compilation techniques. One having skill in the art, would know that compilation techniques are applied to source code. Therefore, the transformations in the first class of optimizations are applied to source code.

Pages 15-17 include a description of the first class of optimizations. Four steps are identified as being part of the first class of optimizations. The first step involves extracting the source code corresponding to the trace condition and trace handler from the protocol layers.[6] Specifically, protocol operations (as opposed to layering operations) for the trace condition and the trace handler are extracted.[7] The remaining three steps are activities performed on the extracted source code. In the second step, intermediate data structures are eliminated by removing the explicit use of events.[8] The third step completely inlines all functions called from the trace handler.[9] The fourth step applies traditional optimizations to the trace handlers.[10]

In describing the third step (inlining), the specification notes that "code explosion" is not a concern in this situation because there are only a small number of trace handlers, which are normally not too large. It is important to note that in

---

[6] *See* the specification at page 15, lines 17-19.

[7] *See* the specification at page 15, lines 30-34.

[8] *See* the specification at page 16, lines 2-3.

[9] *See* the specification at page 16, lines 16-17.

[10] *See* the specification at page 16, lines 32-33.

describing the third step, it is clear that a "trace handler" is code.

Further, in describing the fourth step (traditional optimizations), the specification notes that applying traditional optimizations is very effective because the previous steps create large basic blocks which compilers can optimize. Therefore, the "previous steps," steps 1-3, result in something which a compiler can optimize. One having skill in the art would know that a compiler optimizes computer code.

From the foregoing, it will be recognized that the specification describes a first class of optimizations directed at transforming computer code, and in particular, transforming the extracted source code corresponding to the trace condition and trace handler. Further, the specification identifies, within the first class of optimizations, a second step in which intermediate data structures are eliminated by removing the explicit use of events in the protocol layers. Consequently, it is clear that the transformation of the second step involves a change to computer code which results in the elimination of intermediate data structures. That change is the removal of explicit uses of events in the source code extracted from the protocol layers. As such, the specification identifies a step in which extracted source code corresponding to a common sequence of operations is modified by eliminating source code calling for creation of intermediate data structures. Therefore, the specification provides the necessary description corresponding to the fifth paragraph of claim 2. Hence, the 35 U.S.C. 112 rejection must be withdrawn.

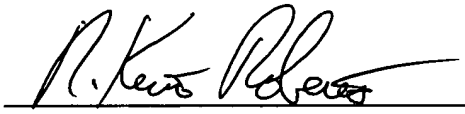
CONCLUSION

In view of the foregoing remarks, it is respectfully submitted a full and complete response to the Office Action has been made. The claims are in condition for allowance, and allowance of the claims is respectfully requested.

The Applicant believes that a petition for a one-month extension and the associated fee is due with this *Response*. Attached is a petition for an extension of time - the fee should be charged to deposit account No. 08-2442. If additional time is required, please consider this a petition for an extension of time necessary to enter this response. If additional fees are necessary to enter this response, please charge those fees to deposit account No. 08-2442.

The Examiner is invited to call applicant's attorney if any questions remain following review of this response. The undersigned is willing to explain by telephone or in person, the reasons the claims are allowable.

Respectfully submitted,



R. Kent Roberts
Attorney for Applicant
Registration No. 40,786

Date: August 23 , 2004

Hodgson Russ LLP
One M&T Plaza, Suite 2000
Buffalo, NY 14203-2391